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The BAROMETER is a student newspaper for the exchange of ideas and information concerning the development and improvement of the professional environment at the Naval Postgraduate School.

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In an unusual attack on a fellow committe member and Democrat, House Armed Services Chairman F. Edward Hebert recently blasted Rep. Les Aspin:

"Critics of Defense programs who obtain publicity by being negative and offer no constructive criticism or alternatives are doing a disservice to the country and are creating more problems than they solve....It is about time for Aspin to put up or shut up. From now on I will challenge every erroneous, misleading, and distorted statement he makes." (NAVY TIMES 3 October 1973)

FEATURE: NAVY PLANNING SHIPS THAT SKIM OCEAN SURFACE

Throughout the early days of the paddle-wheel steamer's successes proposals were often made concerning the use of balloons attached to a steamboat's hull to lift the hull out of the water, reducing drag, and enabling the craft to make speeds of 100 m.p.h. This idea may seem absurd today, but the basic principle---getting hulls out of the water for increased speed---is a subject of intense R&D effort by all the navies of the world. In the fifth edition, the reowned "Jane's Surface Skimmers" discusses this revolutionary change in surface ship construction. "Although commerical operators continue to approach air-cushion vehicles and hydrofoils with caution, the world's biggest navies seem to be in no doubt that in developed form these are the surface vessels of the future... Over the past year, plans have been projected for skimmers large and small to be employed in dozens of warship roles from light patrol vessels, antisubmarine warfare destroyers and frigates, to troop transports, minesweepers and carriers. The shift from displacement to non-displacement vessels is one of the most revolutionary changes ever."

The Navy's strong interest in this program of development is demonstrated by its $79 million appropriations request for FY 1974. Presently the Bell Aerospace division of Textron at New Orleans and Aerojet-General on the West Coast have built and are testing for the Navy 100 ton Surface Effect Ship prototypes which utilize the captured air bubble principle. The Bell SES100-B travels on a drag-reducing cushion of air contained by catamaran-style side hulls and flexible bow and stern seals. While cruising, the center portion of the hull is out of the water, near frictionless, and supported by the air cushion. Eight lift fans generate and maintain this air cushion while three gas turbines drive twin screws astern of each of the two side hulls provide the craft's main propulsion. The Aerojet-General prototype differs primarily in its method of propulsion which is water jet versus Bell's propellers. Bell's SES100-B has already set a world's speed record for this type of vessel---nearly 85 m.p.h. on Lake Pontchartrain at New Orleans.

The main objectives of the development of the 100 ton prototype of the SES is that a larger craft of this type (2,000 tons) is expected to take over the present antisubmarine warfare role now held by destroyers. With submerged nuclear submarines capable of speeds of 40 m.p.h. or greater and armed with torpedoes at least that fast or faster, current conventional vessels face significant disadvantages. The Navy believes that surface effect ships armed with helicopters, modern weapons and electronics would reduce this advantage the nuclear submarines have and would enable a destroyer-SES to control

hundreds of square miles of ocean. Regardless of the controversy generated by some who feel that the aircraft carrier and the submarine are the only ships of consequence in the modern fleet, the Navy (last November) awarded four contracts totalling $10.6 million to Aerojet-General, Bell Aerospace, Litton and Lockheed to do preliminary designs of a 2,000 ton SES which might evolve into a destroyer-SES. (Summary of LOS ANGELES TIMES article of 27 May 1973)

SERVICE NOTES

***NO BIG DEAL - That's what Army Chief of Staff Creighton W. Abrams said when he was asked to approve a press release assigning the first woman in Army history to head up major mixed overseas commands. "What the hell", he said, "it's just another outstanding lieutenant colonel getting a good assignment." He declined to make a major announcement because the lieutenant colonel is a woman. "It's what we promised women," he said; "Don't brag about how great we are."

The WAC, who will become the CO of the Wurzburg Post in German on 25 September, is peppery Lt Col Nancy Hopfenspirger, a 5' dynamo who has no fear of tackling tough jobs. Her most recent assignment was in Congressional Liaison, ACSFOR, DA, althought she's had considerable WAC command experience as a more junior officer. She found out about her new job by a phone call from a personnel officer. No fanfare. Low key approach to a WAC assignment seems to reflect the trend in putting more women in major command jobs as a routine matter.

In fact, there's a major Army study underway on whether or not the Women's Army Corps as such should be disestablished and Army women assimilated into regular Army ranks on an equal footing with men (non would serve in the combat arms, however). The Chief of Staff's attitude on women in key jobs might portend such a development.

Col Hopfenspirger's assignment as Wurzburg Post Commander follows an earlier assignment of WAC Capt Reba C. Tyler as CO 48th AG Postal Detachment, Mannheim, Germany, a considerably smaller outfit than Col Hopfenspirger's new command but the first time a woman has been put in command of a principally male unit overseas. Other women in key mixed command posts are all in U.S.:

*WAC Col Frances Weir, CO Hq Trp Command (Brigade), Ft Jackson, S.C.

*Navy Capt Robin L. C. Quigley, CO, U.S. Navy Service School Command, San Diego, Calif.

*WAC Col Georgia D. Hill, CO, Cameron Station, Washington, D.C.

*AF Col Norma Brown, CO 6970th Air Base Group, Ft Meade, Md.

*MAJ Barbara Darden, CO, Recruiting Detachment 110, Manchester, New Hampshire.

And just a few weeks ago, the Army approved having the first woman, Barbara Elizabeth Schoen, go through Army flight training. She will enter the Service this fall and go into primary flight school early in 1974, after completing the regular basic training. While the Navy has also approved some women for flight school, it has been only on a test basis so far. The Army decision is not provisional in that sense.

*** Advanced shipboard weapons system, AEGIS, was demonstrated publicly for the first time 15 Aug. at RCA, Moorestown, N.J. AEGIS has the simultaneous capability to detect, track, and engage multiple targets at long and short ranges. RCA says the new system will provide unprecedented operational flexibility, target handling capability and speed, and air traffic control. The 12 x 12-foot radar array incorporates more than 4,000 electronically-steered radiating elements to shape and direct the radar beam. This gives it the ability to change beam direction almost instantly within its field of view. Demonstration was held at Moorestown Land Based Test Site, a replica of a facility being completed in the Navy's test ship, the USS NORTON SOUND. The system will be sea-tested by NORTON SOUND this fall. AEGIS has met all Navy's contractual milestones in time, starting with a Preliminary Design Review in Oct. 1970.

***Navy LAMPS MARK I ASW helicopter system will end up involving 105 Kaman H-2 conversions at a cost of $92.0 million. Thirty conversions are budgeted for $22.6 million in FY 74; program would end up with final 30 conversions in FY 75 at $13.1 million. Mid-summer DoD review of a follow-on Mark III system involved 3 contenders for combined ASW and anti-ship missile defense roles: U.K.'s WG-13, licensed to Sikorsky, now version of Bell's twin-engine UH-1N, or new production of Kaman UH-2s (possibly an improved version), to fill out balance of 200-odd helicopter LAMPS requirement. Mark I systems will go on DLG 26s, DLG 35s, DE 1040s, DE 1052s, leaving DD 963s, other escort vessels and possibly Sea Control Ships to be fitted with Mark IIIs.

***Lockheed's ASW P-3 Orion patrol aircraft, sometimes called "the most cost-effective weapons system in the U.S. Navy's arsenal," is in service of 4 free world countries other than U.S. The 400th P-3 Orion to come off Lockheed's production line was delivered to the Navy recently. It is planned to keep the aircraft in production until the 1980's. Since 1959, Lockheed had delivered 157 P-3As, 144 P-3Bs, 98 P-3Cs, and one RP-3D, the Project Magnet airplane used by Navy to map earth's magnetic field. The C model, the most advanced features the computer integrated A-NEW system developed by the Navy. The other countries using the P-3 Orion are Australia, New Zealand, Norway, and Spain.

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POSTGRADUATE SCHOOL NOTE

AMERICAN SOCIETY OF NAVAL ENGINEERS

The Naval Postgraduate School Section of ASNE is now entering its fourth year. It is a technical society of special interest to students, staff and faculty of NPS as it focuses on naval ships and their design, contracting and mission. The broad scope of this topic employs knowledge from every department at this school. Thus the objectives of our Chapter of ASNE is the encouragement of the concept of the interdisciplinary nature of naval engineering. This approach is designed to appeal to management students as well as engineering students, to the line officer as well as the ship engineering officer.

For more information on what ASNE can offer you, contact

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or stop by at Halligan Room 204.